INNOVATIONS

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PACIFIC e-HEALTH INNOVATION CENTER (P-eIC)
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P-eIC Wins Coveted Pono Technology Award

Susan Onuma

Imark Communications has presented the Pono Technology Award to the PACIFIC e-HEALTH INNOVATION CENTER (P-eIC) at Tripler Army Medical Center. The award is given to organizations that demonstrate leadership, serve as an example of real-world risks, challenges, benefits and realizations to "doing it right", and motivate other organizations in the state of Hawaii to follow the lead and initiate similar projects. "Pono" is a Hawaiian word meaning "excellence", or "correct or proper procedure".

The PACIFIC e-HEALTH INNOVATION CENTER as a whole, has crafted a new technology concept of research and demonstration/validation in association with a live test environment (Tripler Army Medical Center, Makalapa, Hickam Air Force Base, Marine Corps Base Hawaii, Pacific Island beneficiaries, Department of Defense, Asia healthcare facilities, etc.) that is without peer in the public and private sectors.

Peter Kay, the Pono Technology Award Event Chair said, "This award, in its first year, recognizes the achievements of Hawaii-based organizations that have demonstrated leadership and have overcome significant barriers and challenges in implementing technology solutions." P-eIC was selected as the Pono Technology Award winner in the "Government" category, narrowly besting tough competitors such as the Hawaii Health Systems Corporation's Telemedicine Network, the Kauai County Housing Agency, and the Honolulu City and County Employees Federal Credit Union. Other categories included Education, Large Enterprise, Small Business, and Non-Profit.

The award, sponsored by the Bank of Hawaii, was presented at a special recognition banquet during the recent Hawaii High Technology Showcase held at the Hawaii Convention Center.

COL Rosemary Nelson, Program Manager and CIO

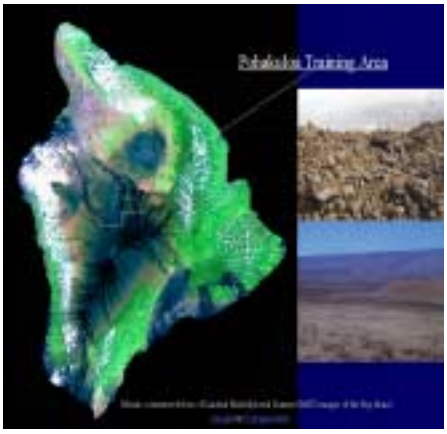
P-eIC Wishes You a Healthy and Prosperous New Year

Teleradiology Link to Pohakuloa Training Area (PTA) Goes "Live"

LTC Michael Bromage

Pohakuloa Training Area (PTA) on the island of Hawaii is the largest training area in the Pacific. In the saddle between Mauna Loa and Mauna Kea, the high-desert environment offers training to nearly all the services, including active duty, Reserve and National Guard.

Medical personnel of varying backgrounds and skill levels provide medical care during training exercises. The medical facilities at PTA are basic and include primary life support and rudimentary trauma support. The nearest hospitals are at Waimea, 25 miles from PTA, or Hilo, 35 miles away. Transportation to these hospitals is often difficult due to poor street and visibility conditions along Saddle Road, a highway known for numerous automobile accidents.



The PACIFIC e-HEALTH INNOVATION CENTER (P-eIC) has funded a pilot project to provide a teleradiology and teleconsultation link between PTA and Tripler Army Medical Center, Honolulu. In July 2000, Glenn Kim, the program's project manager, together with LTC Michael Brumage, a staff internist at Tripler Army Medical Center and the project's principal investigator, officially put the finishing touches on the teleradiology link and inaugurated its use. To date, the system has been used to help seven soldiers in the training environment.

When a radiograph is needed to help an ill or injured soldier, he or she receives a typical X-ray. Instead of developing the X-ray normally to make a film to be viewed on a lighted view box, the image on the radiographic plate is digitized with a 2:1 loss-less compression. The data is then transmitted via a secure link to the MDIS digital radiology system at Tripler.

There, radiologists interpret the decompressed images and return an interpretation to the healthcare provider at PTA in about one hour. Investigative specialist and radiologist Major Kenneth Cho and radiologist Major Alex Freitas are overseeing the radiology portion of the project at Tripler.

One goal of the project is to provide definitive diagnosis of X-rays at PTA by radiologists. If successful, the system may save money and man-hours by avoiding unnecessary and lengthy patient evacuations for X-ray interpretation. This is the first time that Tripler Army Medical Center has attempted teleradiology outside of its trusted network utilizing a virtual private network connection.

The teleconsultation system is slated for implementation in the near future. A web-based patient tracking database was developed for this project initially by Rob Whitton, and later completed and implemented by Darnell Griffin, of P-eIC. It has been in use since June 2000.

This project is the culmination of two years of planning and coordination between P-eIC; Tripler; the Schofield Barracks Health Clinic, also in Hawaii; the Commander of the Pohakuloa Training Area; the Division of Information Management at Fort Shafter, HI; and the Commander of the 25th Infantry Division Support Command. Other investigators include Colonel Dale Vincent, Chief of the Department of Medicine at

Tripler; LTC Terry Walters, Commander of the Schofield Barracks Health Clinic; LTC John Shero,Deputy Commander for Administration at Schofield Barracks Health Clinic; Sergeant First Class Alden Prowell, Non-Commissioned officer in Charge, PTA Clinic; and Captain Rajeev Narayan, resident internist. Special assistance regarding the project has come from many people in the P-eIC office, including: Colonel Rosemary Nelson, the Chief Information Officer and Program Manager for P-eIC; Cynthia Kohuth; Jill Lewellen-Aiona; John Draude; and Glenn Kim.

P-eIC "In the News"....

Scottsdale Institute's "Information Edge"
The October 2000 issue discusses how e-health strategies are taking root across America, and cites P-eIC as a pioneer in e-Health research.

Honolulu Advertiser
The December 7, 2000 issue of the Honolulu Advertiser, highlights P-eIC as a Pono Technology Award winner.

Military Medical Technology
Volume 4, Issue 5 of Military Medical Technology Online features the Teleradiology Link

P-eIC Focuses on Business Process Re-engineering & Benefits Analysis

Sheila Chinn

The PACIFIC e-HEALTH INNOVATION CENTER has implemented a rigorous program and process for Business Process Re-engineering (BPR) and benefits analysis for all of its current and future projects. The instituted program:

- Guides functional process improvements and provides performance measurement system that permits deployment and implementation of strategy on a continuous process improvement cycle.
- Supplies visibility to support decision making, account-ability, improvement and unbiased, objective benchmarking.
- Achieves cost savings through streamlined functions, eliminated redundancy, and efficiency through simplicity
- Identifies qualitative and quantitative, financial, and non-financial benefits for each project
- Offers a formal process which includes a Balanced Scorecard (matrix of organ-izational strategy converted into operational and strategic measures), customer value chain and financial analysis with measurement of Return on Investment.

Cardiac Care Follow-up Through the Internet

Frank Prestwood

The Cardiology Service of Tripler Army Medical Center, with the support of the PACIFIC e-HEALTH INNOVATION CENTER (P-eIC), is conducting a research project which involves the use of the Internet to facilitate communication and information exchange between former cardiac patients and healthcare providers. The Cardiology Service's goal for this project is to confirm that presentation of educational/ behavioral motivational materials provided via the Internet can positively change health behaviors and cardiac risk factors in cardiac rehabilitation patients, improving their quality of life. The project's intent is to validate the feasibility of using the Internet to provide follow-on healthcare services to cardiac patients.

Currently, there are patients with heart disease participate in a cardiac rehabilitation program consisting of supervised exercise and education/behavior modifi-cation designed to improve functional status and reduce risk of recurrence. However, some patients revert to prior behaviors, which puts them at increased risk of further cardiac problems. In order to minimize this recurrence

and to facilitate a more effective means of medical service, an interactive website will be used to exchange and disseminate information and resources between patients and healthcare providers. The research team believes that presentation of educational and motivational materials via the Internet can positively change health behaviors and cardiac risk factors in former cardiac rehabilitation patients and improve their quality of life.

The project entails patient participants completing a series of questionnaires prior to the test period. Upon conclusion of the Internet intervention, the questionnaires will again be completed and statistical comparisons will be made with the initial values and among the study groups. Specifically, the research team will identify a group of patients who have participated in at least 12 weeks of a cardiac rehabilitation program and have access to the Internet. The team plans to offer a refresher/support program of information, counseling, and resources to assist patients in controlling cardiac risk factors and possibly improving their health status and quality of life. A project website will be developed with both publicly accessible and password protected sections, to convey information and obtain questionnaire results from patients. Each patient will be asked to access the website for 1 hour per week for 12 weeks to read posted information, ask questions, and follow links to other websites providing information related to heart disease. Questionnaire data will be compared before and after the 12-week study. Also compared will be groups of patients who access the Internet at home, those who utilize collateral Internet access (e.g. community facility, work, etc.), and with a control group without Internet access. The Principle Investigator for this project is Major Kathy Prue-Owens, and the P-eIC Project Manager is Mr. Frank Prestwood.

Additional information regarding this project, including project photos, can be accessed at P-eIC's website:

http://prpo.tamc.amedd.army.mil

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